

Work Order ID 91805

October-19-12 12:45:32 PM

91805

ACC

Page 1

Item ID: 646.9701

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Cutter Sub Assembly

Stop ***NS2***

Start Date: 18/10/2012 Start Qty: 2.00

2

Cust Item ID:

Required Date: 01/11/2012 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan: MLS Date: 12-10-19 Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
646.9700	N/C								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120		0.00							
120									
Small Fab	Memo	0.00							
Small Fab	Assemble as per dwg and apply loctite 598 on all mating surfaces per note 2.								
	A/R LOCTITE 598: <u>125 174</u>								
130	QC5- Inspect part completeness to step on W/O	0.00							
130									
QC	Memo	0.00							
Quality Control									

13-04-10

13-04-10

13-04-11

2

2

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>						
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector			
Doc/Data <input type="checkbox"/>												
Equip/Tooling <input type="checkbox"/>												
Operator <input type="checkbox"/>												
Material <input type="checkbox"/>												
Setup <input type="checkbox"/>												
Other <input type="checkbox"/>												
Process <input type="checkbox"/>												
Supplier <input type="checkbox"/>												
Training <input type="checkbox"/>												
Unapproved <input type="checkbox"/>												
FAULT CATEGORY												
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other	

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October-19-12 12:45:32 PM

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Page 2

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Identify as per dwg & Stock Location: <i>Med</i>	0.00							
140									
Packaging	Memo	0.00		<i>13-4-11</i>		<i>2</i>			
Packaging	"Russ"								
150	QC21- Final Inspection - Work Order Release	0.00							
150									
QC	Memo	0.00							
Quality Control									

13/4/12

mr
13-4-11

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

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QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
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Picklist Print

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Page 1

Work Order ID: 91805

91805

Parent Item: 646.9701

646 9701

Parent Item Name: Cutter Sub Assembly

Start Date: 18/10/2012

Required Date: 01/11/2012

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A 12.08.13 NEW ISSUE DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status																								
646.9710 *646 9710* Body		Manufactured	No		91790	110	Each	0.0000	1	2	2	13-04-10																									
646.9711 *646 9711* Blade		Manufactured	No		91266	110	Each	0.0000	2	4	4	13-04-10																									
MS21042L08 *MS21042I 08* Nut		Purchased	No			110	Each	1,234.000	6	12																											
<table><tr><th>Location</th><th>Loc Qty</th><th>Loc Code</th></tr><tr><td>315</td><td>47</td><td></td></tr><tr><td>122452</td><td>47</td><td></td></tr><tr><td>ST315</td><td>123900</td><td></td></tr><tr><td>122814</td><td>500</td><td></td></tr><tr><td>ST317</td><td>500</td><td></td></tr><tr><td>122141</td><td>687</td><td></td></tr><tr><td></td><td>687</td><td></td></tr></table>														Location	Loc Qty	Loc Code	315	47		122452	47		ST315	123900		122814	500		ST317	500		122141	687			687	
Location	Loc Qty	Loc Code																																			
315	47																																				
122452	47																																				
ST315	123900																																				
122814	500																																				
ST317	500																																				
122141	687																																				
	687																																				
MS27039-08-19 *MS27039-08-19* Screw		Purchased	No			110	Each	600.0000	6	12																											
<table><tr><th>Location</th><th>Loc Qty</th><th>Loc Code</th></tr><tr><td>ST308</td><td>600</td><td></td></tr><tr><td>123352</td><td>600</td><td></td></tr></table>														Location	Loc Qty	Loc Code	ST308	600		123352	600																
Location	Loc Qty	Loc Code																																			
ST308	600																																				
123352	600																																				
											12	13-04-10																									

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

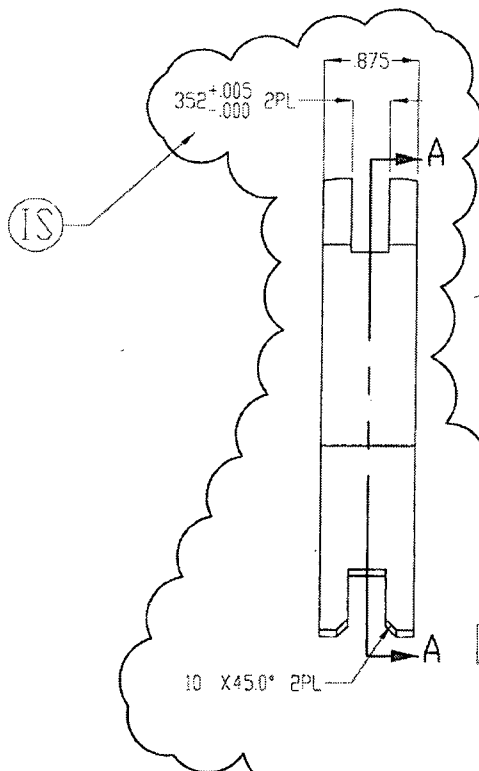
Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
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Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

FAULT CATEGORY				
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge _____ _____ _____	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other _____ _____ _____

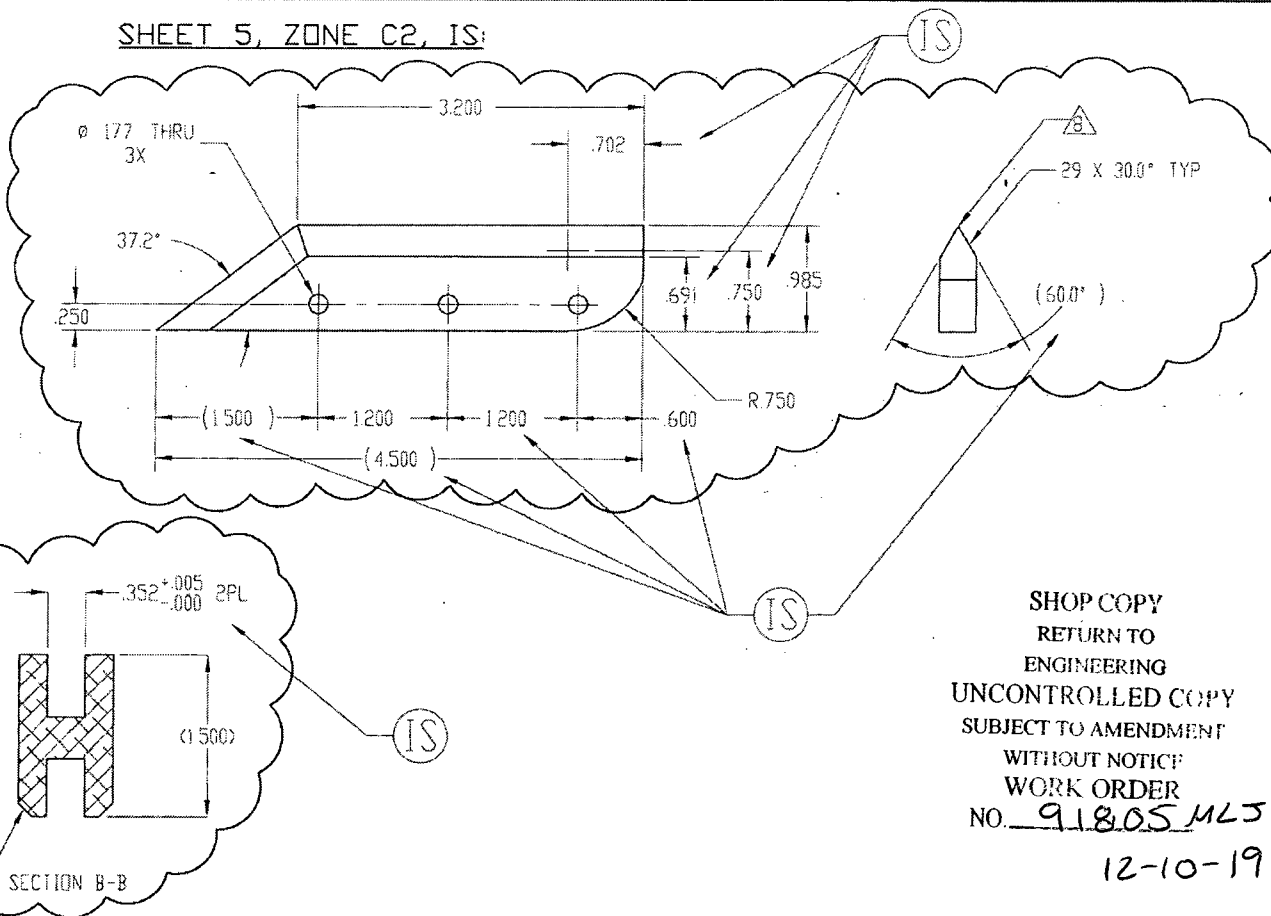
APICAL
INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 02744		SHEET 1 OF 1	
DWG NO. 646.9700	REV IN/C	PREPARED BY S.HUFF	DATE: 01/07/10
DWG TITLE: CUTTER SUB ASSY		EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.	
APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER
REASON: REVISED SCREW LENGTH, CHANNEL WIDTHS & DIMENSIONING SCHEME SHEET 5.			

SHEET 2, ZONE C6, IS:



SHEET 5, ZONE C2, IS:



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 91805 M25
12-10-19

3	R	601.3157	12	SCREW	MS27039-0818
			.9701		
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
DOCUMENTS EFFECTED:				CHANGE CATEGORY	DER REVIEW REQUIRED
<input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRU <input checked="" type="checkbox"/> ICA <input type="checkbox"/> FMS <input checked="" type="checkbox"/> BOM				<input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

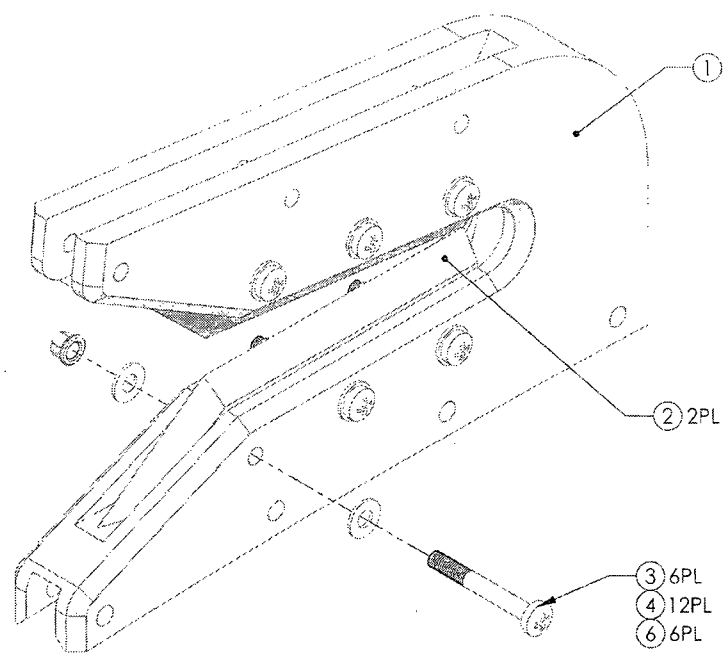
91805

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REV	DESCRIPTION	DATE	APPROVED
1	ISSUED FOR PRODUCTION		
2	REVISED		

NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER; PRIME IAW MIL-P-23377 J TYPE I CLASS N; 1-2 MIL MAX
- 3 MATERIAL: AISI A2 TOOL STEEL; CONDITION: ANNEALED; POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS
- 4 FINISH: PRIME IAW MIL-P-23377 J TYPE I CLASS N; 1-2 MIL MAX
- 5 DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
- 6 IDENTIFY IAW MPP-120
- 7 APPLY F/N 5 AS REQUIRED TO ALL FAYING SURFACES OF F/N 2 UPON ASSEMBLY
- 8 CUTTING EDGE INTENDED TO BE SHARP, DO NOT BREAK SHARP EDGE

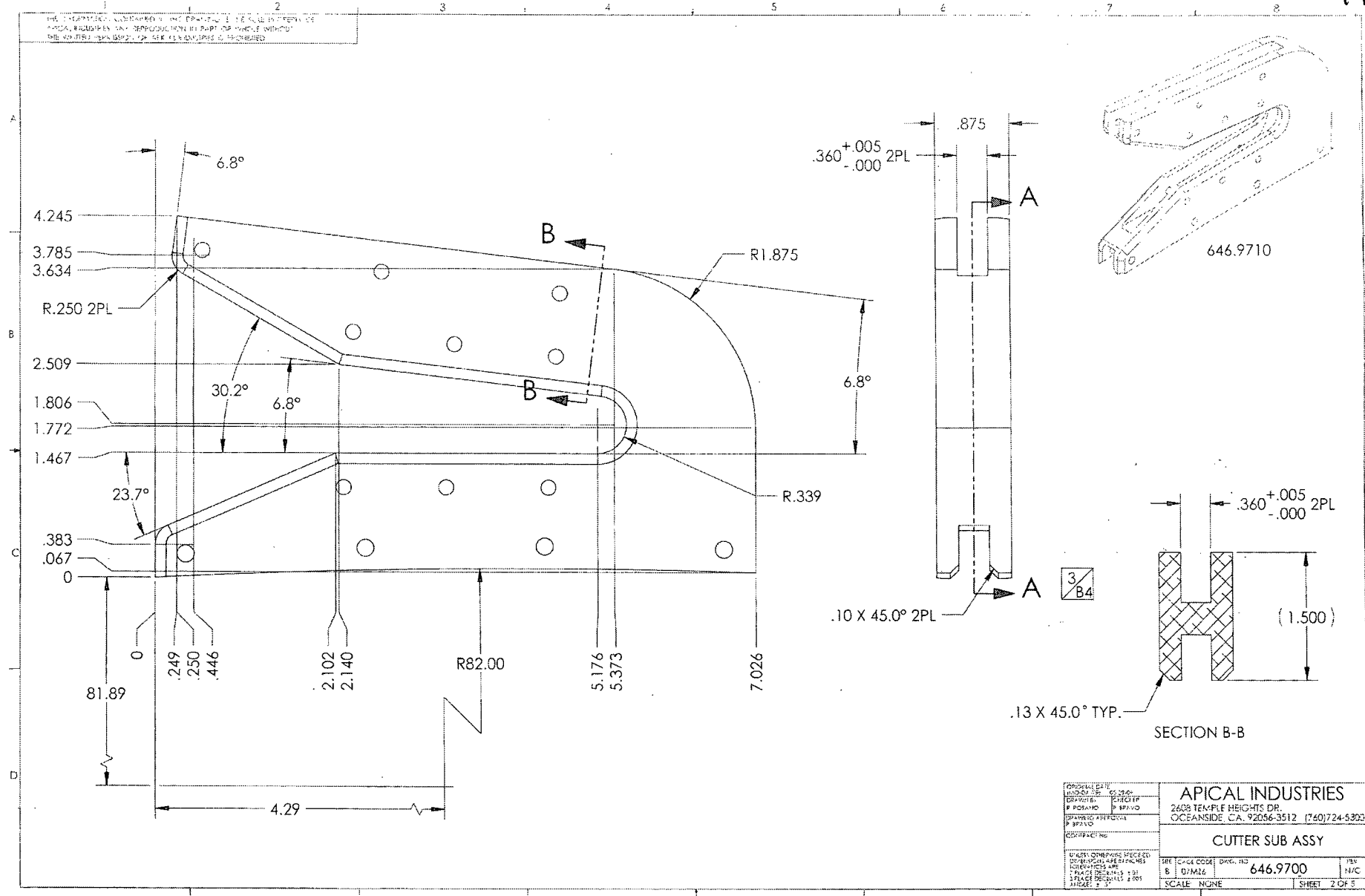


646.9701

UNINCORPORATED ECN(s)

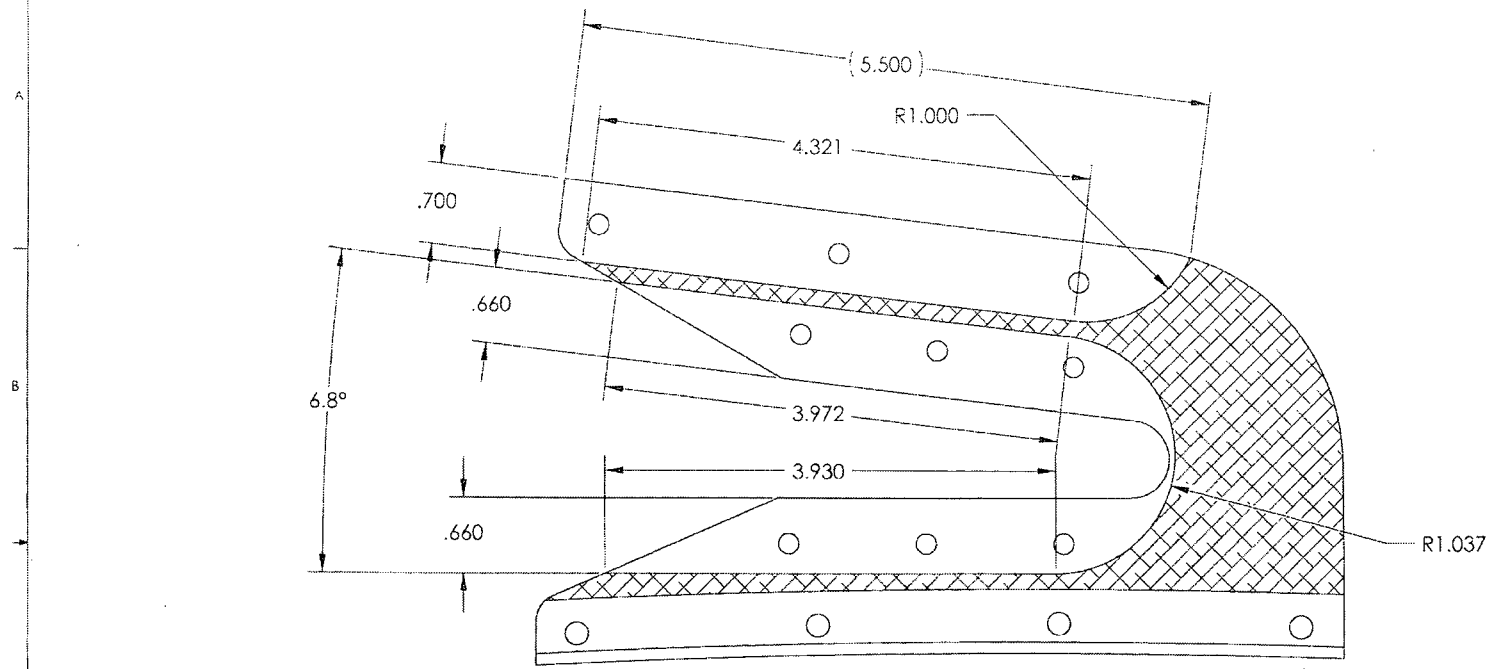
02744

QTY	REV	REV #	PART #	DESCRIPTION	MATL	SPEC.
6	6	601.1541	LOCK NUT			
A/R	5	601.2045	RTV, LOCTITE 598			
12	4	601.2764	WASHER			
6	3	601.2765	SCREW			
2	2	646.9711	BLADE			
1	1	646.9710	BODY			
		646.9701	CUTTER SUB ASSY			
PARTS LIST						
NEXT ASSY (S)						
646.9600						
APICAL INDUSTRIES						
2605 TEMPLE HEIGHTS DR.						
OCEANSIDE, CA. 92056-3512 (760) 724-5300						
CUTTER SUB ASSY						
REV. 1						
B						
SCALE: NONE						
SHEET 1 OF 5						

[illegible]

91805

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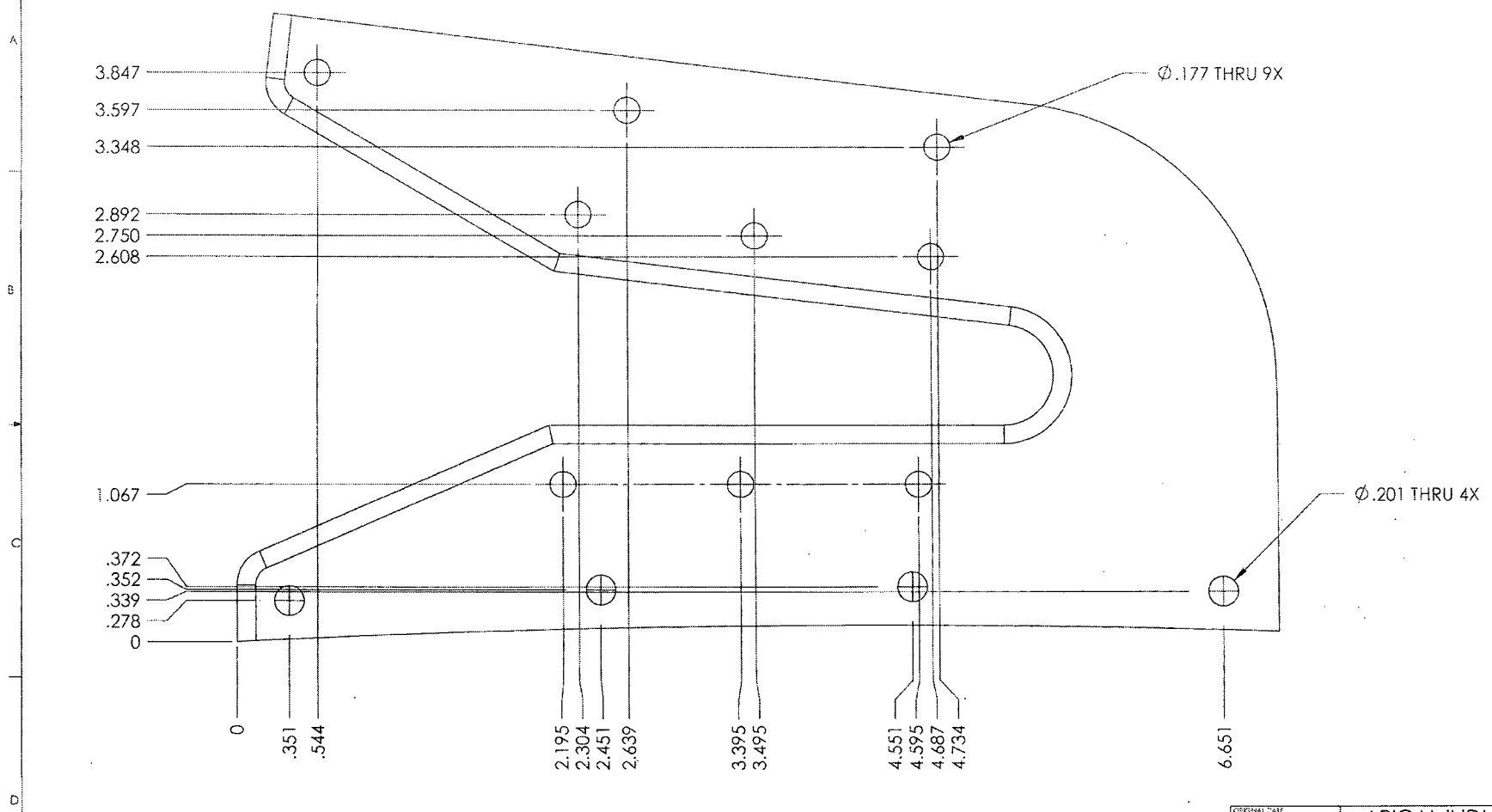


SECTION A-A $\frac{2}{C8}$

ORIGINAL DATE		ISSUED DATE		SECTION	
BY: [blank]		CHECKED BY: [blank]		[blank]	
BY: [blank]		CHECKED BY: [blank]		[blank]	
DRAWING APPROVAL		APICAL INDUSTRIES			
BY: [blank]		2608 TEMPLE HEIGHTS DR.			
CHECKED BY: [blank]		OCEANSIDE, CA. 92056-3512 (760)724-5300			
CONTRACT NO.		CUTTER SUB ASSY			
UNLESS OTHERWISE SPECIFIED		SIZE		DWG. NO.	
DIMENSIONS ARE IN INCHES		8		646.9700	
TOLERANCES ARE:		0.00125		N/C	
3 PLACES DECIMALS .001		SCALE: NONE		1 SHEET 3 OF 3	
ANGLES ± .5°					

91805

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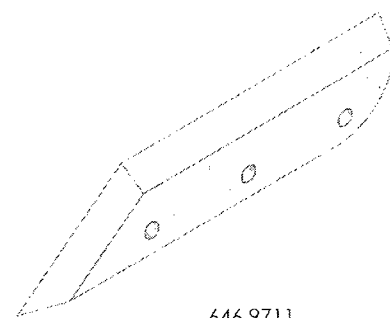
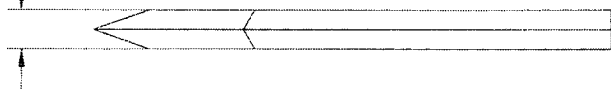
HOLE LOCATIONS +/- .002

ORIGINAL DATE 06-29-07		APICAL INDUSTRIES	
DESIGNED BY P. ROYAL		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-6300	
CHECKED BY P. ROYAL		CUTTER SUB ASSY	
DRAWING APPROVAL P. ROYAL		SCALE NONE	
CONTRACT NO.		SHEET 4 OF 5	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES 1/16 1/32 1/64 .001 .002 .005 .010 .015 .020 .030 .040 .050 .060 .070 .080 .090 .100 .125 .150 .175 .200 .250 .300 .350 .400 .450 .500 .600 .700 .800 .900 1.000 1.250 1.500 1.750 2.000 2.500 3.000 3.500 4.000 4.500 5.000 6.000 7.000 8.000 9.000 10.000		REV B 646.9700 NVC	

91805

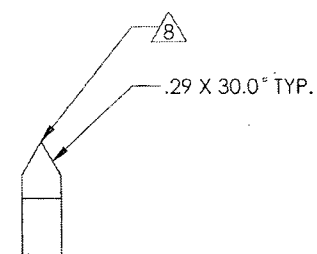
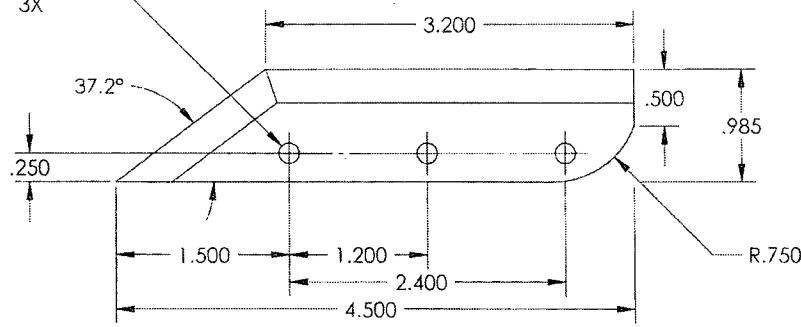
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OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL,
INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL
SYSTEM, WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES, INC.

.340^{+.000}
-.005



646.9711

Ø.177 THRU
3X



DESIGNED BY: CS-0001 DRAWN BY: R. POSANO CHECKED BY: P. BRAYO DATE: 10/27/00 SCALE: 1:1		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760) 724-5300	
PART NAME: CUTTER SUB ASSY PART NO: 646.9700 SCALE: NONE		SHEET 5 OF 5	